

What Is Claimed Is:

1. A method of evaluation of the proximity of a brand and/or a vehicle, based on factors obtained as a result of factor analysis of a brand group and/or a vehicle group,

5 comprising

evaluation of the mutual proximity between brands, or between vehicles, or between a brand and a vehicle, through the magnitude of the angle  $\theta$  formed by the vectors thereof, in a coordinate system in which a plurality of factors are  
10 respectively taken to be axes with the origin taken to be the factor score = 0, and the factor score of each brand and/or each vehicle for each factor is expressed as a distance from the origin along the factor axis.

15 2. The method of evaluation of the proximity of a brand and/or a vehicle according to claim 1, comprising the evaluation of mutual proximity by means of the magnitude of the angle  $\theta$  made by said vectors and their mutual distance.

20 3. A method of evaluation of the proximity of a brand and/or a vehicle, based on factors obtained as a result of factor analysis of a brand group and/or a vehicle group, wherein

in a coordinate system in which a plurality of factors  
25 are respectively taken to be axes with the origin taken to be the factor score = 0, and the factor score of each brand and/or vehicle for each factor is expressed as a distance

from the origin along the factor axis, the mutual proximity of a specific brand or vehicle  $l_i$  and a specific brand or vehicle  $m_j$  is evaluated by means of equation (1) below.

$$D_{ij} = [\alpha \{ \sum_{k=1}^n (l_{ik} - m_{jk})^2 \} + \beta (1 - \cos \theta_{ij})^2]^{1/2} \quad (1)$$

5 where:

$i, j$ : Numbers assigned to brands or vehicles

$D_{ij}$ : Value distance between brand or vehicle  $l_i$ , and brand or vehicle  $m_j$

10  $l_{ik}$ : Factor score on the  $k$ -factor axis of brand or vehicle  $l_i$

$m_{jk}$ : Factor score on the  $k$ -factor axis of brand or vehicle  $m_j$

$n$ : Number of factor axes used in evaluation

15  $\theta_{ij}$ : Angle made by the vectors of the brand or vehicle  $l_i$ , and the brand or vehicle  $m_j$

$\alpha, \beta$ : Weighting factors, where  $0 \leq \alpha \leq 1$  and  $0 < \beta \leq 1$

20 4. The proximity evaluation method according to claim 3, wherein  $2\alpha \leq \beta$ .

5. The proximity evaluation method according to claim 3, wherein  $\alpha = 0.05$  to  $0.4$ , and  $\beta = 0.95$  to  $0.6$ .

25 6. A method of evaluation of the proximity of a vehicle to a brand, which determines the affinity of each of the vehicles in a selected vehicle group with a specific

brand by means of the value distance  $D_{ij}$  of claim 3 formed by each of the vehicles of said selected vehicle group and said specific brand.

5           7. A method of evaluation of the proximity of a brand to a vehicle, which determines the affinity of each of the brands in a selected brand group with a specific vehicle by means of the value distance  $D_{ij}$  of claim 3 formed by each of the brands of said selected brand group and said specific  
10 vehicle.

          8. A method of evaluation of the proximity of a brand to a brand, which determines the proximity of each of the brands in a selected brand group with a specific brand by  
15 means of the value distance  $D_{ij}$  of claim 3 formed by each of the brands of said selected brand group and said specific brand.

          9. A method of evaluation of the proximity of a  
20 vehicle to a vehicle, which determines the proximity of each of the vehicles in a selected vehicle group with a specific vehicle by means of the value distance  $D_{ij}$  of claim 3 formed by each of the vehicles of said selected vehicle group and said specific vehicle.

25           10. A method of evaluation of the proximity of a brand and/or a vehicle, based on factors obtained as a result of

factor analysis of a brand group and/or a vehicle group,  
comprising

evaluation of the mutual proximity between brands or  
between vehicles through the magnitude of the angle formed by  
5 factor scores and a factor axis, in a coordinate system in  
which a plurality of factors are respectively taken to be  
axes with the origin taken to be the factor score = 0, and  
the factor score of each brand and/or each vehicle for each  
factor is expressed as a distance from the origin along the  
10 factor axis.

11. The method of evaluation of the proximity of a  
brand and/or a vehicle according to claim 10, comprising the  
evaluation of proximity by means of the magnitude of the  
15 angle made by factor scores and a factor axis, and the  
distance between factor scores and the origin.

12. A system for evaluation of the proximity of a brand  
and/or a vehicle, based on factors obtained as a result of  
20 factor analysis of a brand group and/or a vehicle group,  
comprising

means for determining factor scores of each brand  
and/or vehicle for each factor of the plural factors, and,

in a coordinate system in which the plural factors are  
25 taken to be axes with the origin taken to be the factor score  
= 0, and the factor score of each brand and/or vehicle for  
each factor is expressed as a distance from the origin along

the factor axis, means for generation of the angles of vectors formed between coordinate points determined by the factor scores of each brand and/or each vehicle.

5           13. A system for evaluation of the proximity of a brand and/or a vehicle, based on factors obtained as a result of factor analysis of a brand group and/or a vehicle group, and having

means for determining factor scores of each brand and/or  
10 vehicle for each factor of a plurality of factors, and,

in a coordinate system in which the plural factors are taken to be axes with the origin taken to be the factor score = 0, and the factor score of each brand and/or vehicle for each factor is expressed as a distance from the origin along  
15 the factor axis, means for generation of the angles formed between coordinate points determined by the factor scores of each brand and/or each vehicle, and factor axes.

14. The system for proximity evaluation according to  
20 claim 12, having means for generation of distances between coordinate points and/or distances between coordinate points and the origin.

15. A system for evaluation of the proximity of a brand  
25 and/or a vehicle, based on factors obtained as a result of factor analysis of a brand group and/or a vehicle group, and having

means for determining factor scores of each brand and/or vehicle for each factor of a plurality of factors, and,

in a coordinate system in which the plural factors are taken to be axes with the origin taken to be the factor score = 0, and the factor score of each brand and/or vehicle for each factor is expressed as a distance from the origin along the factor axis, means for generation of the mutual proximity between a specific brand or vehicle  $l_i$  and a specific brand or vehicles  $m_j$ , using equation (1) below.

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$$D_{ij} = [\alpha \{ \sum_{k=1}^n (l_{ik} - m_{jk})^2 \} + \beta (1 - \cos \theta_{ij})^2]^{1/2} \quad (1)$$

where:

$i, j$ : Numbers assigned to brands or vehicles

$D_{ij}$ : Value distance between brand or vehicle  $l_i$ , and brand or vehicle  $m_j$

15  $l_{ik}$ : Factor score on the k-factor axis of brand or vehicle  $l_i$

$m_{jk}$ : Factor score on the k-factor axis of brand or vehicle  $m_j$

$n$ : Number of factor axes used in evaluation

20  $\theta_{ij}$ : Angle made by the vectors of the brand or vehicle  $l_i$ , and the brand or vehicle  $m_j$

$\alpha, \beta$ : Weighting factors, where  $0 \leq \alpha \leq 1$  and  $0 < \beta \leq$

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25 16. A computer program product for executing the method according to claim 1 or claim 3.